APPONIX™
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SINCE 2013

ISO 9001
INTERNATIONALLY
ACCREDITED

DevOps Training

"UNITE CODE AND CLOUD, ACCELERATE THE FUTURE WITH DEVOPS"

SYLLABUS

Version: 1.0

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About Apponix Academy

- Apponix Academy is a leading training institute offering both online and offline courses in trending technologies like Cloud Computing, DevOps, Cyber Security, Full Stack Development, Data Science, Digital Marketing, and more.
- Established in 2013, Apponix has trained over 50,000 students across India and abroad, helping them build successful careers in the tech industry.
- With centers in Bangalore, Pune, Mumbai, Hubli, Aurangabad, Tumkur, Trichy, Gwalior, Ranchi, and more, Apponix continues to expand rapidly across the country.
- All our courses are designed to be job-oriented, practical, and aligned with real-world industry requirements.
- Our training is delivered by 100+ highly experienced corporate trainers who are experts in their respective fields.
- We offer flexible learning options, allowing students to choose between classroom sessions and live online classes.
- Apponix is ISO certified and provides globally recognized certifications from AWS, Microsoft, and Google.
- Over 3,000+ Apponix alumni are successfully placed in top MNCs with salaries above ₹15 LPA.
- Our focus is on 100% hands-on learning, project-based assignments, and real-time case studies.
- We provide complete career support including resume building, interview preparation, and placement assistance.
- With a strong presence and proven track record, Apponix Academy continues to be a trusted name in professional IT training.

COURSE KEY FEATUERS

- **Guaranteed Interviews**
- **Designated Placement Advisor**
- **Assured Job Placement**
- **Interview Grooming Sessions**
- **Classroom & Online Training**
- **Mock interview sessions**
- **Delivered by Industry Experts**
- **Aws certification Assistance**
- **Professional Resume building session**
- **Industry Relevant Syllabus**

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Awards & Accreditations

IABAC Authorized Partner

JAINx University Partner

ISO Certified

VMWARE Authorized Partner

Most Promising Training Institute

MSME Certified

Sample Certificate

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DevOps Training

DevOps Overview

- DevOps roles have grown significantly—from 10% in 2018 to 45% today, and nearly 70% of system administrators are being replaced with DevOps roles. In short, DevOps is definitely a promising career for all IT professionals. In the next few years, 90% of companies are expected to adopt a DevOps culture.
- In India, the average salary for a DevOps professional is ₹13,34,890 per year. With huge demand and immense potential in the near future, DevOps professionals have exciting career prospects.
- To become a DevOps professional, you should learn automation tools like Chef, Puppet, Ansible, Jenkins, along with other highly useful tools such as Git, Nagios, and Docker.
- At Apponix, we are dedicated to providing the best learning experience for our students for the past 6 years. We offer the best DevOps training in Bangalore and are proud to be recognized as one of the top DevOps training providers in the city. We ensure that all our students gain practical, hands-on experience.
- All our DevOps instructors are working in MNCs with a minimum of 7 years of industry experience.
- The Apponix DevOps Training Course is designed by industry experts to meet the latest market and cloud requirements. This DevOps Certification Training Course will prepare you for a career in the fast-growing DevOps environment, bridging the gap between software development and operations.
- You will become proficient in deployment and automation using configuration management tools such as Git, Docker, Jenkins, Puppet, and Nagios.
- With Apponix DevOps Training, you will gain in-demand skills on the tools most widely used in the DevOps environment.

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Course Duration: 40 Hours

DevOps Training Course Content

1:Devops Lab Setup tools for Linux and windows Environment

- GitBashinstallationandGithubaccountsetup
- TomcatinstallationandConfiguration
- JfrogArtifactoryinstallationandConfiguration
- MavenInstallationandConfiguration
- JenkinsinstallationandConfiguration
- AnsibleInstallationandConfiguration
- SonarqubeinstallationandConfiguration
- DockerInstallationandconfiguration
- JavainstallationandConfiguration
- EnvironmentalvariablesetupforbothwindowsandLinux

2:Introduction to Devops and Devsecops

- Introduction to DevOps
- What is DevOps?
- SDLC Models, Lean, ITIL, Agile
- Why DevOps?
- History of DevOps
- DevOps Stakeholders
- DevOps Goals
- Important Terminology
- DevOps Perspective
- DevOps and Agile
- DevOps Tools
- Configuration Management
- Continuous Integration and Deployment

3:Introduction to SDLC, Software testing, Agile: Software testing lifecycle

- Working with Black Box Testing
- Working with White Box Testing
- Working with Grey Box Testing
- Working with Functional Testing
- Working with Regression Testing, Smoke Testing, System Testing, Integration Testing, etc.
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4:Agile Methodologies:

- Process flow of Scrum Methodologies
- Project planning, scrum testing, sprint Planning and Release management
- Analysis
- Design,Execution and wrapping closure

5:LINUX Administration

- Introduction to Linux Families (ex:Redhat&DebianFamily)
- Working with APT and YUM and Dnf
- Working with AWK and SED commands

6:Installation and Initialization:

- Installation, Package Selection
- Anato my of a Kickstart File, Commandline
- Introduction to BashShell
- System Initialization, Starting the Boot Process: GRUB.

7:Boot and Package Management :

- Securingsingle-usermode(sulogin)
- Shutting down and rebooting the system
- RPM Package Manager, Installing and Removing Software, Updatinga Kernel RPM
- YumCommandset,Installpackagesbyusingyum.
- Apt-get comm and set, Apt-cachepackage management

8:User Administration:

- Understanding different types of groups and creation of groups
- Creation of users in different groups
- Understanding Passwd, Shadow Files
- Understanding passwdaging
- Creation of quotas for users, groups and file systems
- Understanding users securityfiles
- The different comm ands for Monitoring the users
- TROUBLESHOOTING
- Automation of jobs–Cron,at
- Working with command star, find, grep, etc.

9:R unlevels:

- Understanding the different types of run-levels
- Understanding different types of shutdown commands
- Understanding run control scripts
- Understanding the different types

Version Control/SCM(Git)

1:Introductionto Git

- Overview of SVN, GIT, Clearcase, perforce & Comparison
- Introduction of Git
- Selecting Git Client
- Creating Repository
- Working with Tag
- Creating and Merging Branches
- Executing Git Commands
- GitLogs, Gitstash, Gitrebase
- Merge conflictissues resolving
- Gitpull, clone, fetch

Ansible Modules

1:Introduction to Ansible

- What is Ansible
- Change Management
- Provisioning with Ansible
- Benefits of using Ansible

2:Ansible Building blocks and Process flow

- Introduction to Ansible Anatomy
- Ansible Requirements Specification
- Overview of Ansible Components
- Overview of Ansible Strategy

3:Ansible Playbook Modules and directory structure

- Introduction to Ansible Playbook
- Introduction to Ansible Modules
- Lab(Docs,setup,service,yum...etc)

4:Variable,Factsandjinja2templates

- Working with Ansible Variable
- Working with Facts
- Working with Jinja2 Template

5.Play and Playbooks

- Overview of Ansible Playbooks
- Playbook language example
- Working on Ansible handlers
- Executing a playbook

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Docker Modules

1:Getting Started with Docker

- Introduction to Docker
- What's Under the Hood – Namespaces, Cgroups, and OverlayFS
- Understanding Virtualization
- Virtualization vs Containers

2:Docker Installation

- Creating a Virtual Docker Host (CentOS) using Vagrant
- Installing Docker on CentOS
- Introduction to Docker namespaces

3:Docker Images

- Introduction to Docker Images
- Building a Docker Image with a Dockerfile
- Sharing data between your Docker host and containers
- Sharing data between containers
- Copying data to and from containers
- Creating a Docker Hub account
- Building images using a Dockerfile
- Pulling and pushing images from/to Docker Hub

4:DockerNetworking

- IntroductiontoDockerNetworking
- FindingtheIPAddress ofaContainer
- SettingUpaCustomBridgeNetworkfor Docker

5: Container Operations

- Port Mapping for Docker
- Creating, Starting, Stopping, Renaming, and Removing Containers
- Inspecting Containers
- Limiting Resources (Memory and CPU)
- Prioritizing CPU Utilization

6: Docker Compose

- Introduction to Docker Compose
- Creating a Docker Compose File
- Executing a Docker Compose File

Jenkins Modules

1: Introduction to Continuous Integration and Jenkins – CI/CD

- What is Continuous Integration
- Jenkins Continuous Integration
- What is Continuous Deployment
- Jenkins vs Jenkins Enterprise

2: Jenkins Installation

- Downloading and Installing Jenkins using Tomcat
- Creating Jenkins as a Service
- Starting and Stopping Jenkins

3: Configure Jenkins and User Management

- Secure Jenkins
- Create a New User
- Generate SSH Key for Jenkins User
- Plugin Management

5: Jenkins Integration

- Git integration with Jenkins
- Maven integration with Jenkins
- Ansible and Artifactory integration
- Docker and scanning tool integration
- AWS and code review tool integration

6: Jenkins User Administration

- Role-based administration
- Project-based administration
- Metric-based administration
- Slaves configuration
- Users and groups creation

Maven Modules

1: Build Tools Overview

- What is Maven, MSBuild, PyBuild, Gradle, and Ant
- Maven Evolution
- Maven Objective and Environment Setup
- Maven Project Creation
- What is pom.xml and Super POM
- Maven Build Lifecycle Creation and Default Build Lifecycle

2: Customized Project and Plugin Setup

- Maven Project Setup
- Maven Plugin Download and Setup
- Maven Build Automation with CI Service

3.Maven Repositories and GAV Snapshots

- What is GAV (Group, Artifact, Version), Project, and Snapshots Version
- Maven Web Application Creation with

- What is Maven Repository
  1. Local Repository
  2. Central Repository
  3. Remote Repository
- Maven Dependencies and Plugins

Complete Guide to Kubernetes

1. Introduction to Kubernetes

- The need for a Container Orchestration Engine (COE)
- Battles of COEs – which one to choose
- Key features of a COE
- What makes Kubernetes the de facto COE choice
- Negatives of using Kubernetes.

2. Key Concepts of Kubernetes

- Namespaces
- Pods
- ReplicaSets and Deployments
- Service Discovery and Load Balancing
- ConfigMaps, Storage, Network, RBAC
- StatefulSets, CronJobs, and Jobs
- Kubernetes Architecture
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3. Setting Up the Environment

- Provisioning and configuring on AWS
- Initializing a cluster with kubeadm
- Setting up Weave CNI
- Launching the Kubernetes Dashboard
- Setting up a Kubernetes Visualizer
- Resetting a cluster created with kubeadm

4: Building Blocks of Pods

- Introduction to Pod
- Writing Pod Specification
- Launching and Operating Pods – Logging into the pod, browsing the web UI of the pod
- Attaching a Volume to a Pod
- Launching Multi-Container Pods
- Connecting to Individual Containers

5: Managing Application Configurations with ConfigMaps and Secrets

- Introduction to ConfigMaps and Secrets
- Creating ConfigMap for Vote App
- Setting up Environment-Specific Configurations
- Adding Configurations from Files
- Creating Secrets to Encrypt Database Credentials
- Setting Environment Variables Using Secrets

6: Setting up Firewall with Network Policies

- Creating Default Network Policy for a Namespace
- Exposing a Public-Facing App and Allowing Inter-Namespace Communication

Theoretical Discussion on DevOps AI Tools

- Overview: Tools that detect statistically buggy code patterns and structures to help developers avoid common pitfalls.
- Effective Unit Tests: Analyzing code coverage to improve test effectiveness.
- Bug & Vulnerability Detection: Identifying bugs, security vulnerabilities, and optimization opportunities.

Theoretical Discussion on Open Source Security Tools

1. Vulnerability Tracking Tools
2. Compliance Tools
5. Container Security Tools
2. Dashboard Tools
3. Infrastructure Security Tools

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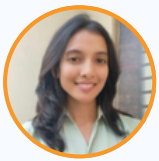
OUR RECENT PLACEMENTS

MR. SRUSTIK GOWDA
GE HEALTHCARE
DEVOPS ENGINEER



MS. DHANASHRI
IZMO LIMITED
CLOUD ENGINEER

Mr. Yogesh
Nextgen
Cloud Engineer

MR. VIVEK ANGADI
INTEGRA MICRO SYSTEMS PVT LTD
LINUX SUPPORT ENGINEER

MR. CHETAN SASTRY
AHANA SYSTEMS
AWS DATA ANALYTICS

MS. MEGHA KRISHNA
TTG TECH SOLUTIONS PVT LTD
NETWORK CLOUD ENGINEER

Mr. Anup C Batakurki
SECURONIX
CLOUD SUPPORT ANALYST

Mr. Ranjith Sheelvanth
AATMANI SOLUTIONS PVT LTD
DEVOPS ENGINEER

MS. ROHINI S
TECHNICOLOUR INDIA LIMITED
CLOUD SECURITY ENGINEER

Ms. Tejas Patil
NETZARY INFODYNAMICS
LINUX ENGINEER

MR. MOHAMMED KALEEM
MINDTREE
SENIOR AZURE ENGINEER

Ms. Sunil Basavaraj
INTEGRA MICRO SUSTEMS PVT LTD
LINUX SUPPORT ENGINEER

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OUR ALUMNI WORKING IN

Head Office - Bangalore
306, 10th Main, 46th Cross, 4th Block
Rajajinagar, Bangalore - 560010

info@apponix.com
8050580888

Branches:
Hubli,Pune,Gwalior,Tumkur,
Trichy,Ranchi